

# Electricity Rate Forecast

September 8, 2022, Demand Analysis Working Group

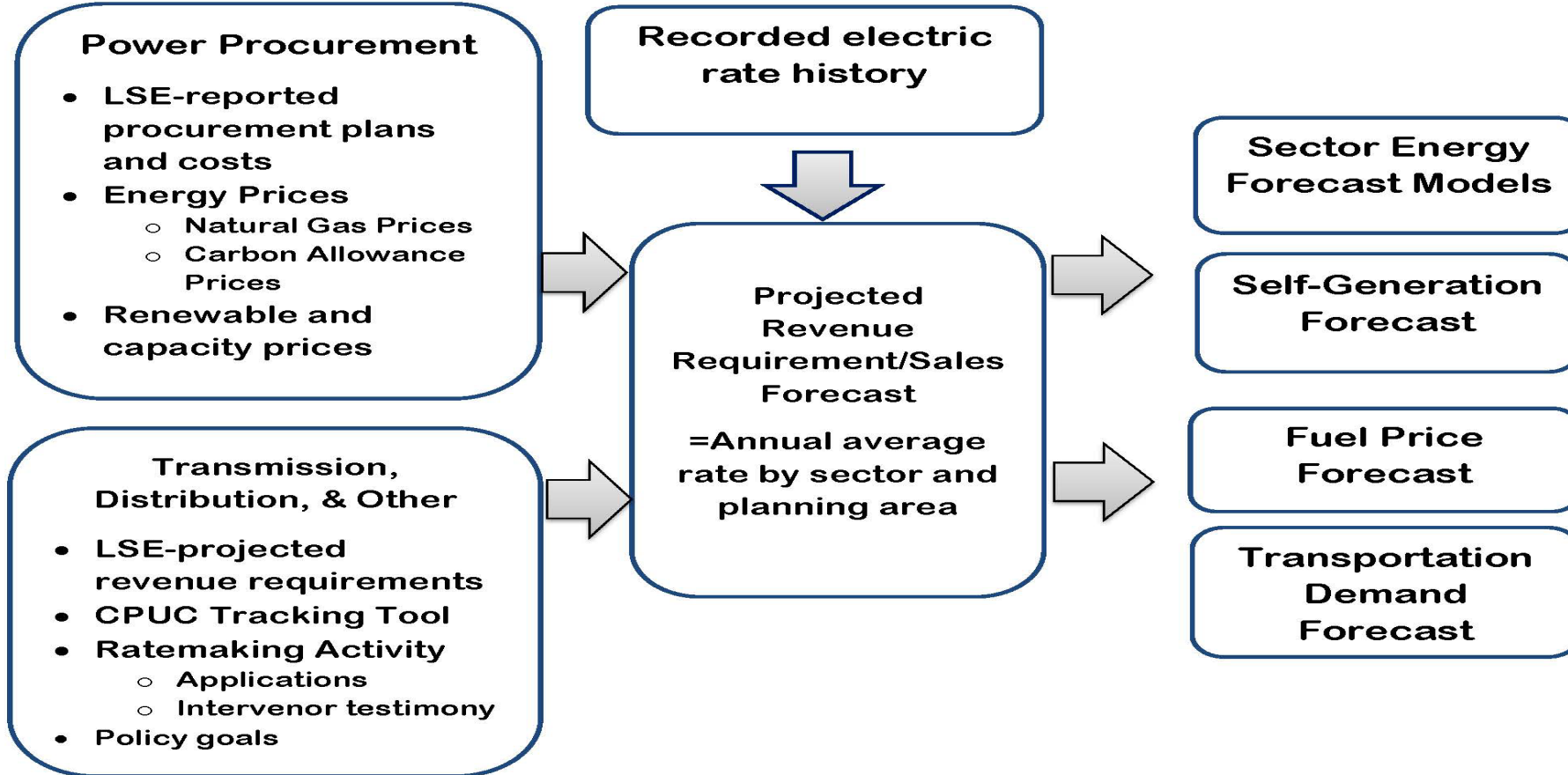


Lynn Marshall

[Lynn.Marshall@energy.ca.gov](mailto:Lynn.Marshall@energy.ca.gov)

Energy Assessments Division

# Overview of Rate Forecast





# Key Inputs – Non-Procurement Costs

- Account for current and prospective IOU revenue requirements using CPUC Energy Division Utility Cost & Rate Tracking Tool data, updated with recent activity in major proceedings.
  - Pending and recently approved applications include significant requests for wildfire mitigation capital and cost recovery.
  - After approved GRC years, base distribution revenue requirement is escalated at 6.5% annually, reflecting recent trends in base GRC plus additional wildfire safety spending cost recovery.
- Rates are calculated using the sales forecast from previous demand forecast iteration
  - This rate forecast is using the AATE plus CARB SIP assumptions.
  - The higher loads implies greater investment in transmission and distribution infrastructure.
- Staff used marginal T&D capacity costs from ACC 2021 to estimate the additional capital expenditure driven by higher demand.
  - Distribution costs are estimated based on 3 year forward increase in peak demand over the previous forecast.
  - Transmission costs use a 1 year forward, as transmission assets are not reflected in rates until placed into service.
- Base year costs per kW are escalated at 2-2.5% annually
- These revenue requirements are allocated only to residential and commercial sectors.

Transmission & Distribution Marginal Capacity Costs			
2021 \$/kW-yr			
	Transmission	Distribution - Long Run	Distribution - Short Run
PGE	52.45	45.67	54.53
SCE	28.52	26.76	181.00
SDGE	14.44	4.35	82.69

Source: 2022 Draft Avoided Cost Calculator v.1a



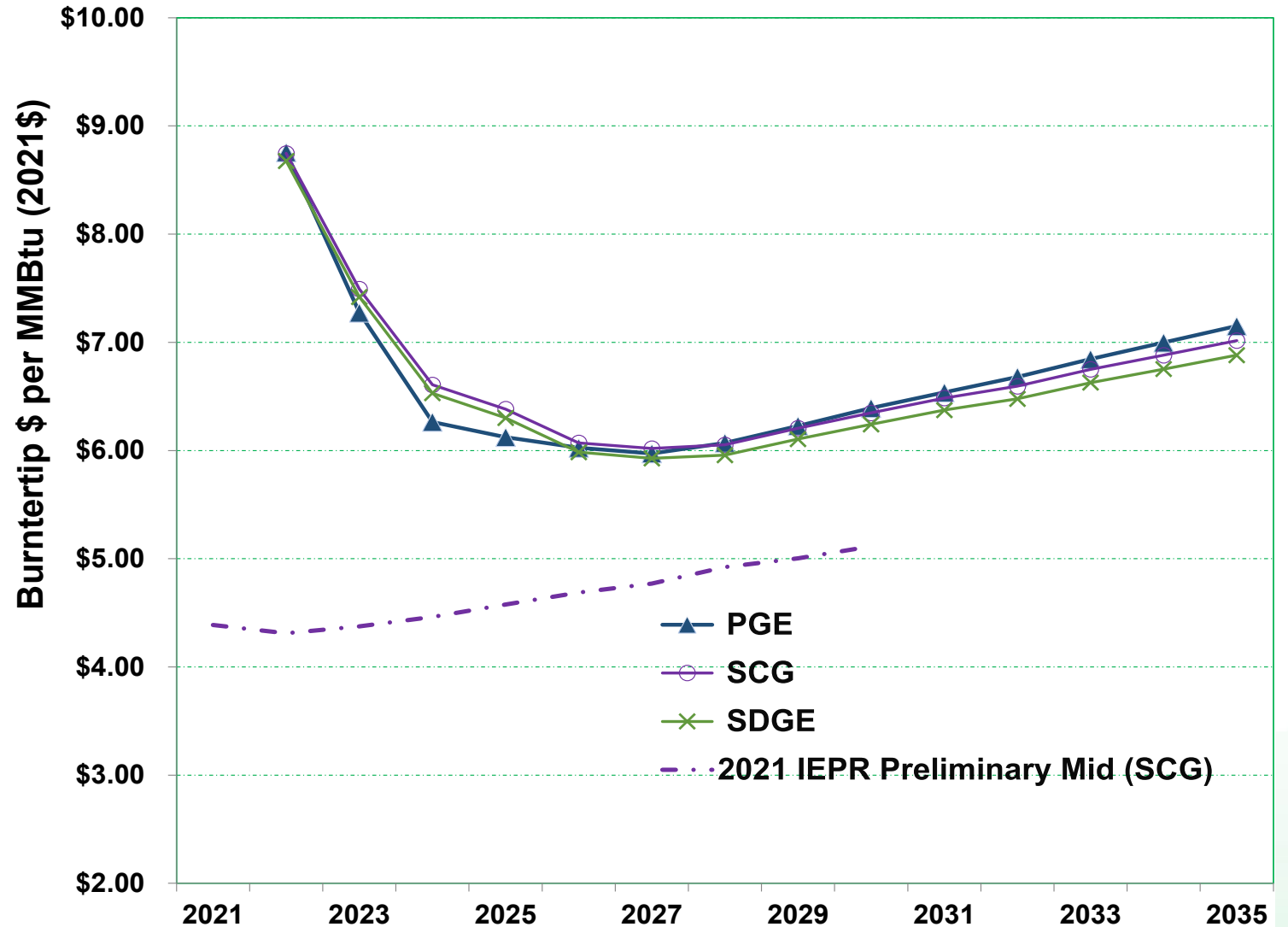
# Procurement Cost Inputs & Assumptions

- Data on resource portfolios and revenue requirements from utility-submitted 2021 IEPR supply and demand forms are used to estimate the cost of existing and planned resources.
- Projected wholesale energy and capacity prices are used to estimate the revenue requirements needed to serve additional load.
  - Energy prices were estimated using:
    - Updated burnertip prices from CEC gas team
    - Updated GHG allowance prices
    - 2019 IEPR implied heat rate curve.
  - Capacity prices are based on the current 2022 Forecast System RA Adder of \$72/kw-year, escalated at inflation.



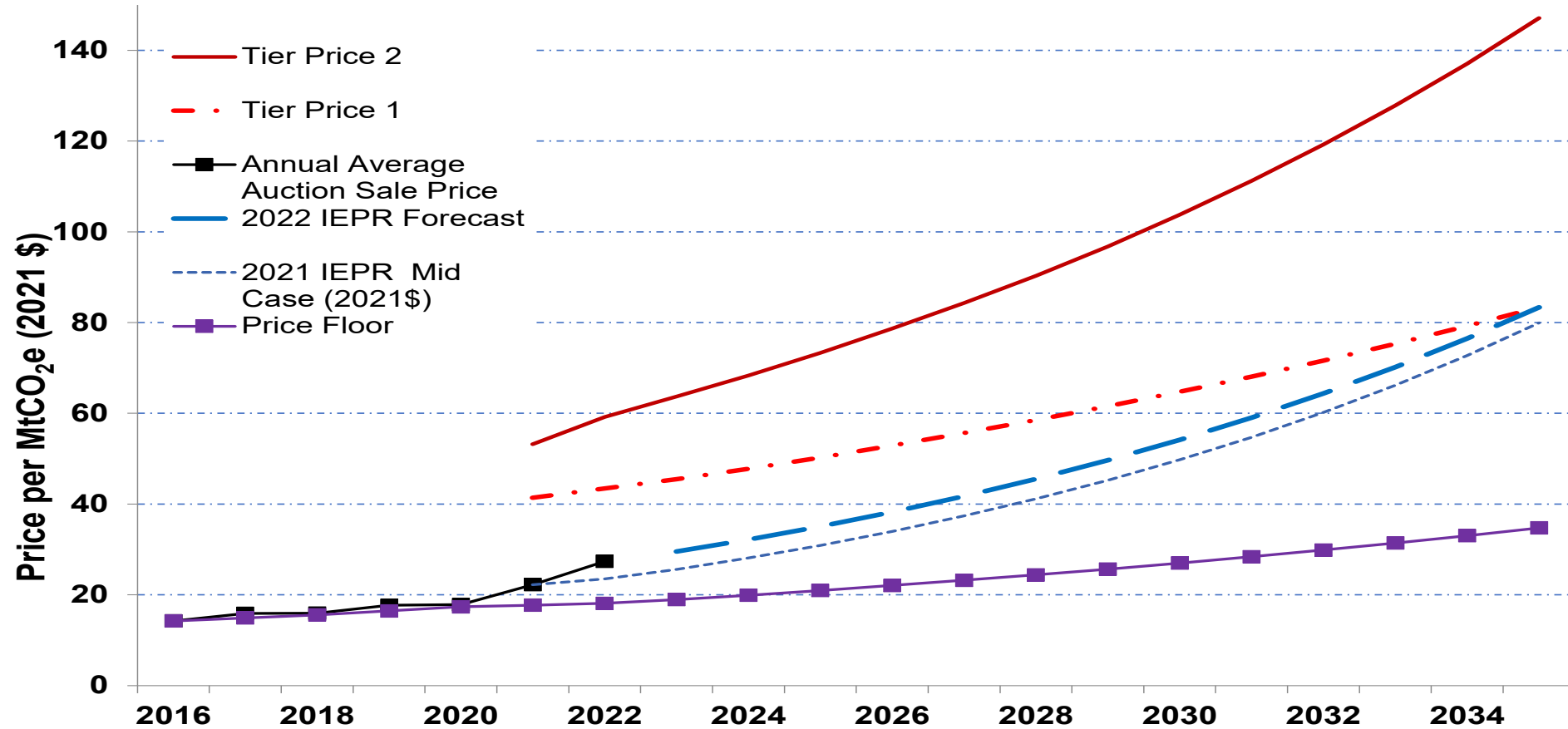
# Natural Gas Burnertip Prices

- To develop an updated city gate price forecast reflecting near-term market conditions, staff used EIA's Short-Term Outlook and NGL's forward prices combined with the CEC's preliminary 2021 IEPR burnertip price forecast.
- Transportation rates are assumed to escalate at 4% annually.





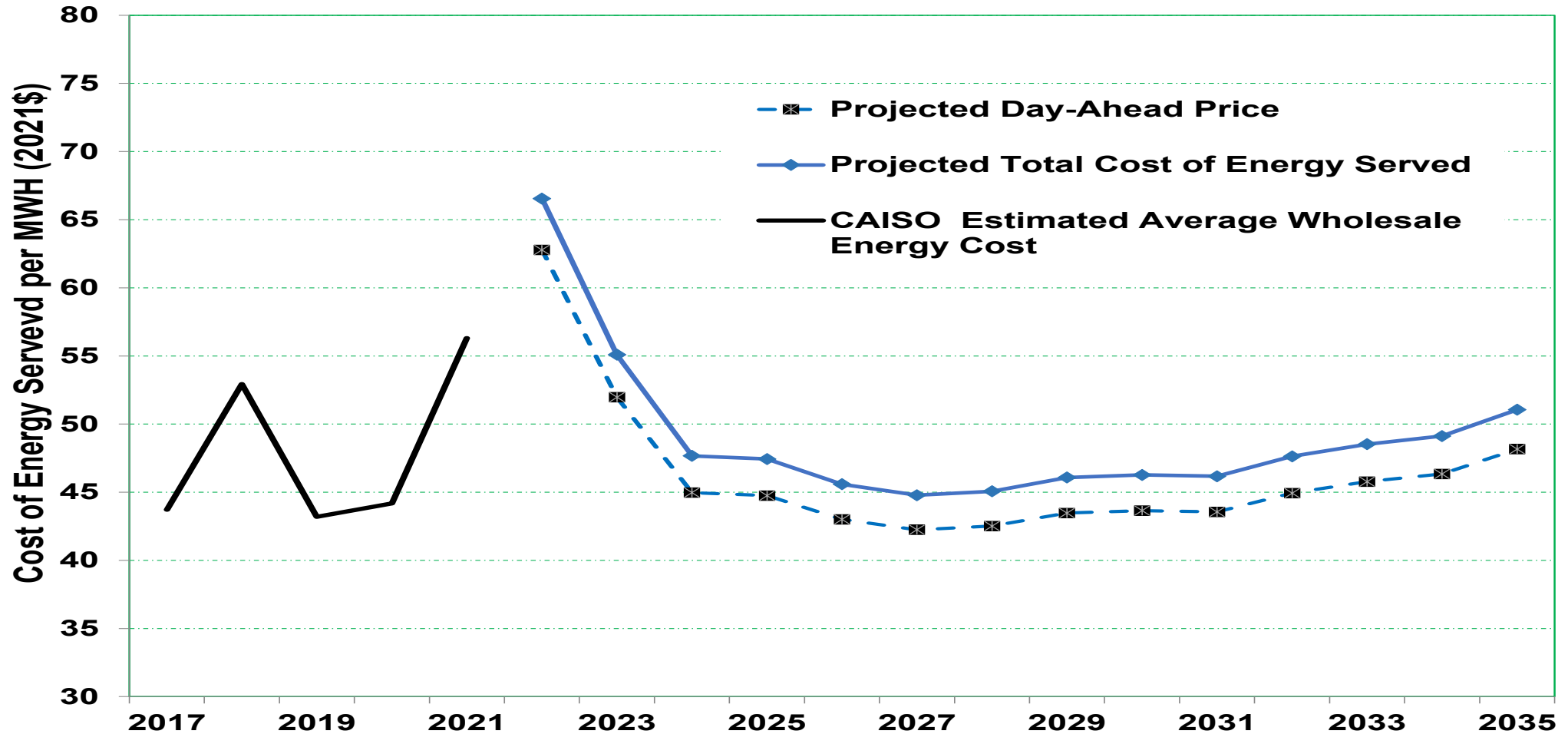
# GHG Allowance Prices



- Auction prices in 2022 have averaged \$28, up from \$22 in 2021.
- As auction prices approach the price containment Tier Prices, CARB will make additional allowances available for purchase.
- Forecast assumes prices will reach the Tier 1 price in 2035, consistent with past analysis of expected value of distribution of outcomes.



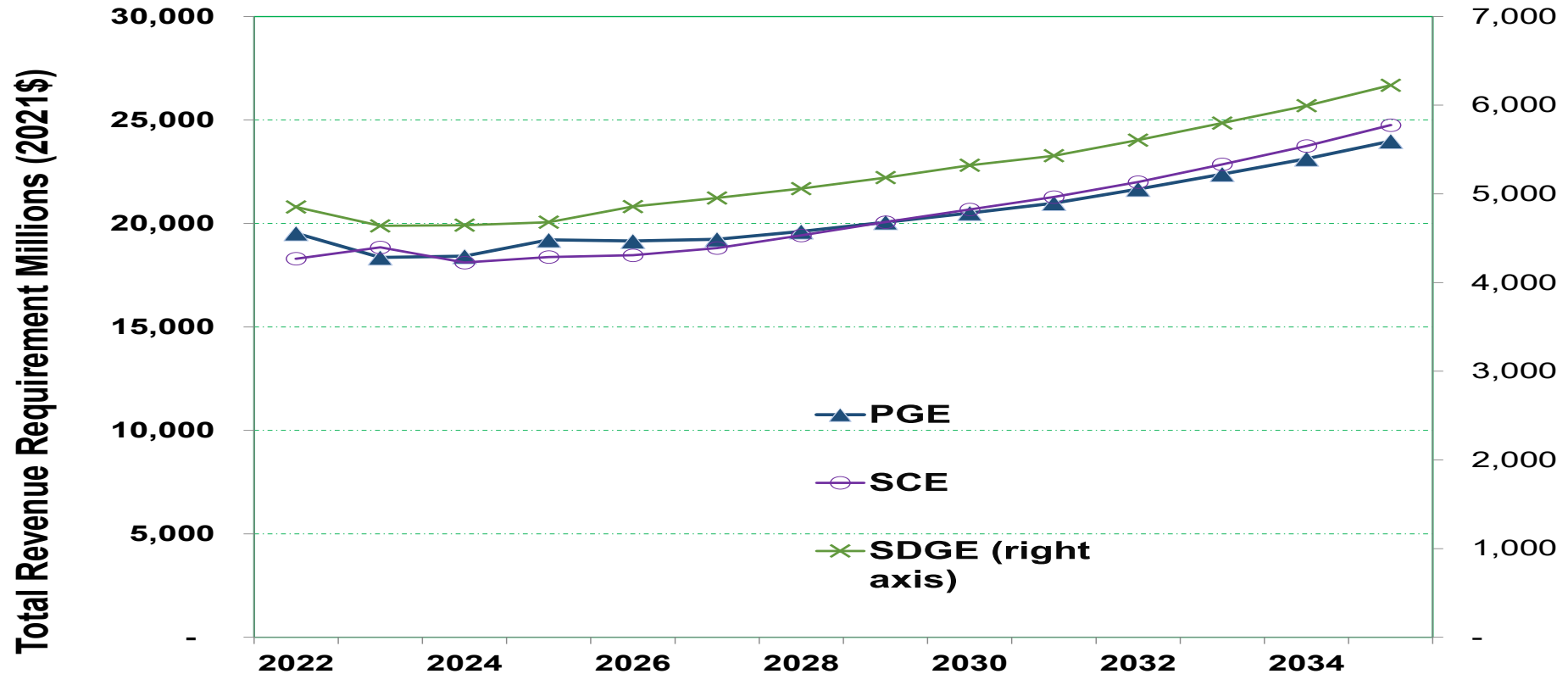
# Wholesale Energy Costs



- Costs for ancillary services, grid management, and other CAISO costs are added to the day-ahead price.



# Total IOU Service Area Revenue Requirements

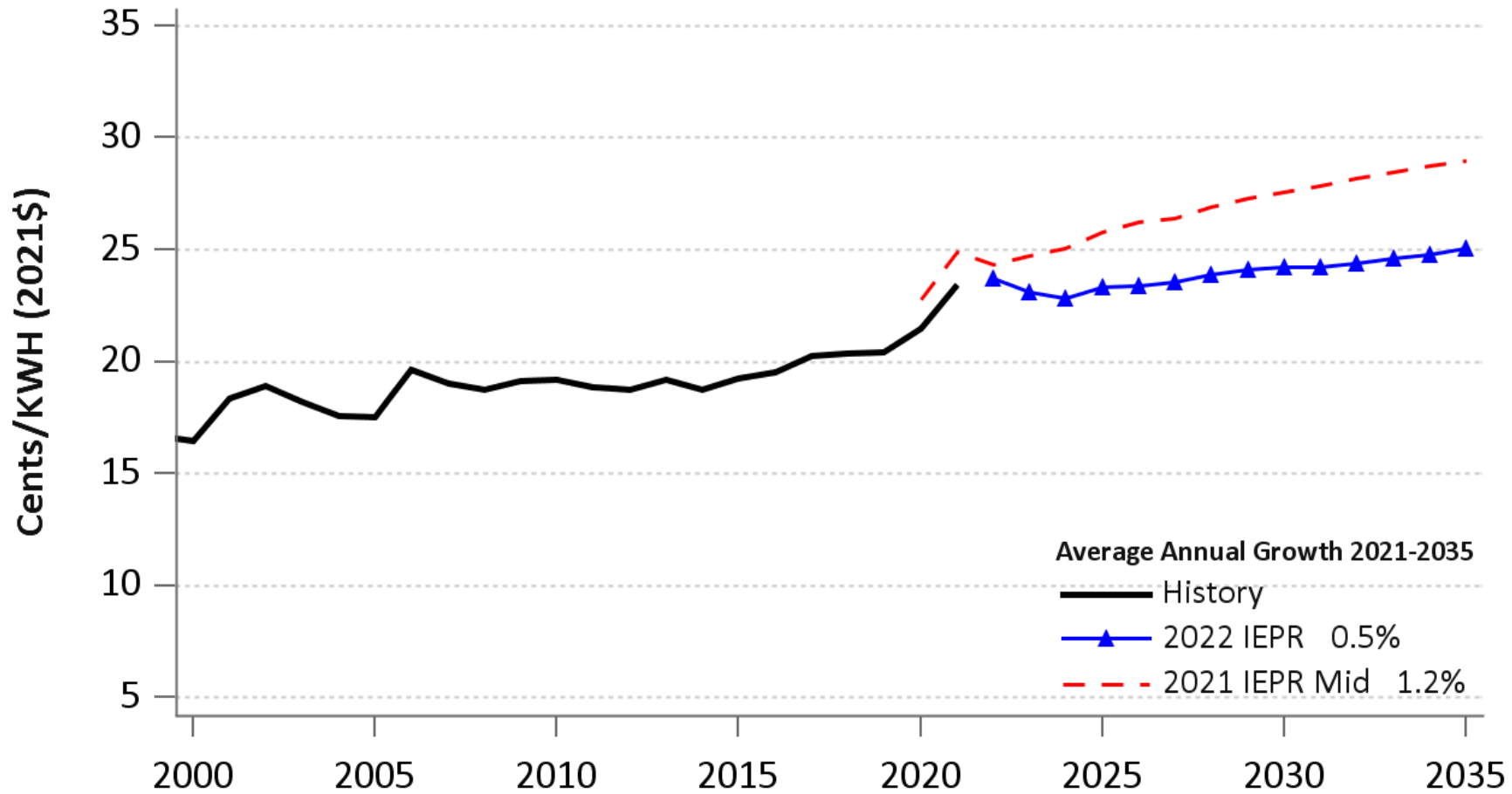


- Includes the IOU's revenue requirement, plus cost of serving direct access and CCA load.
- Total rev. req in SCE increases 2.4% over the forecast periods; PG&E and SDG&E increase 1.6% and 1.9% respectively.





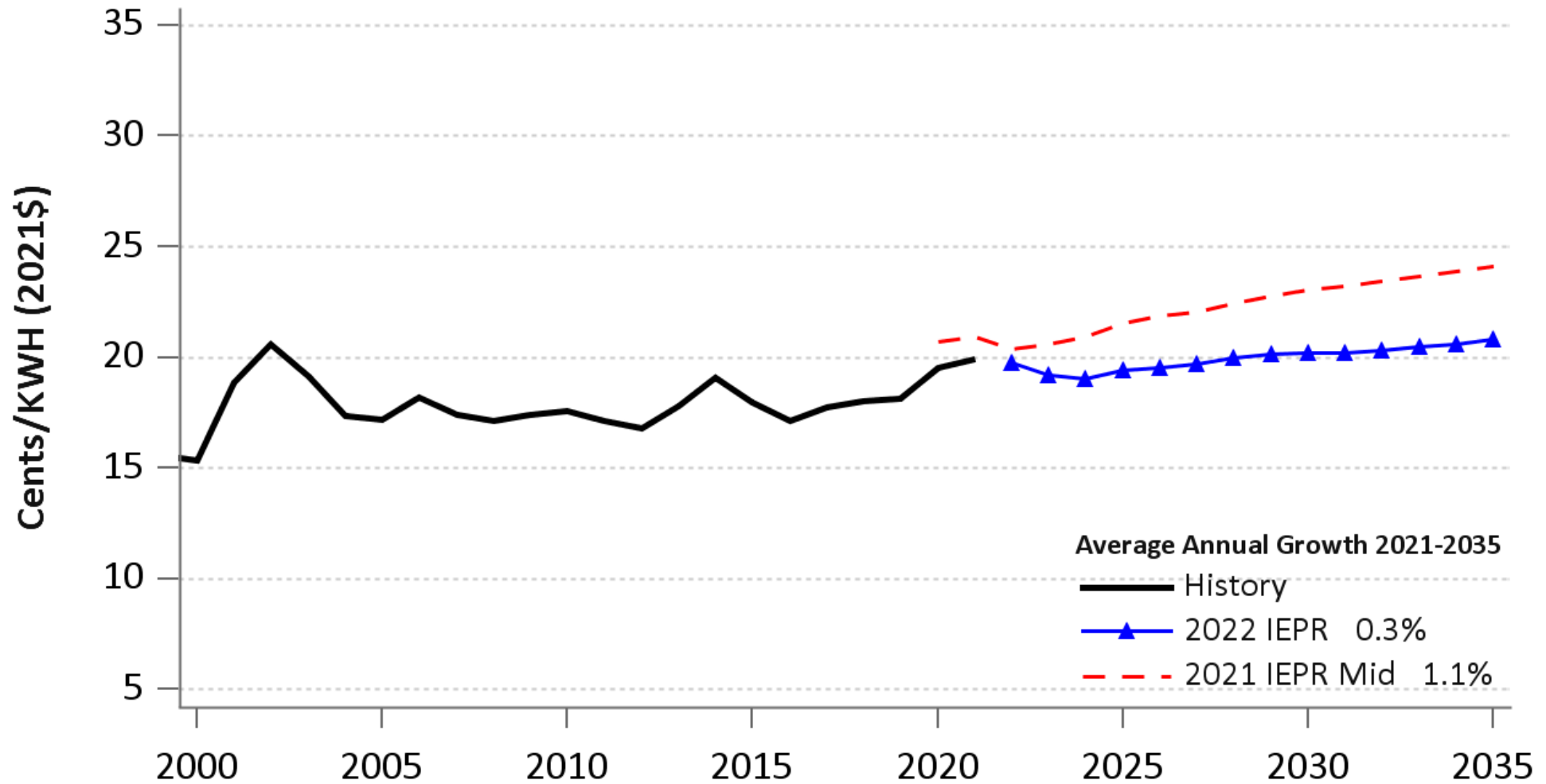
# Statewide Average Residential Electricity Rates



- Lower energy prices (compared to 2022), and higher loads reduce the growth in real rates to ½ % annually.

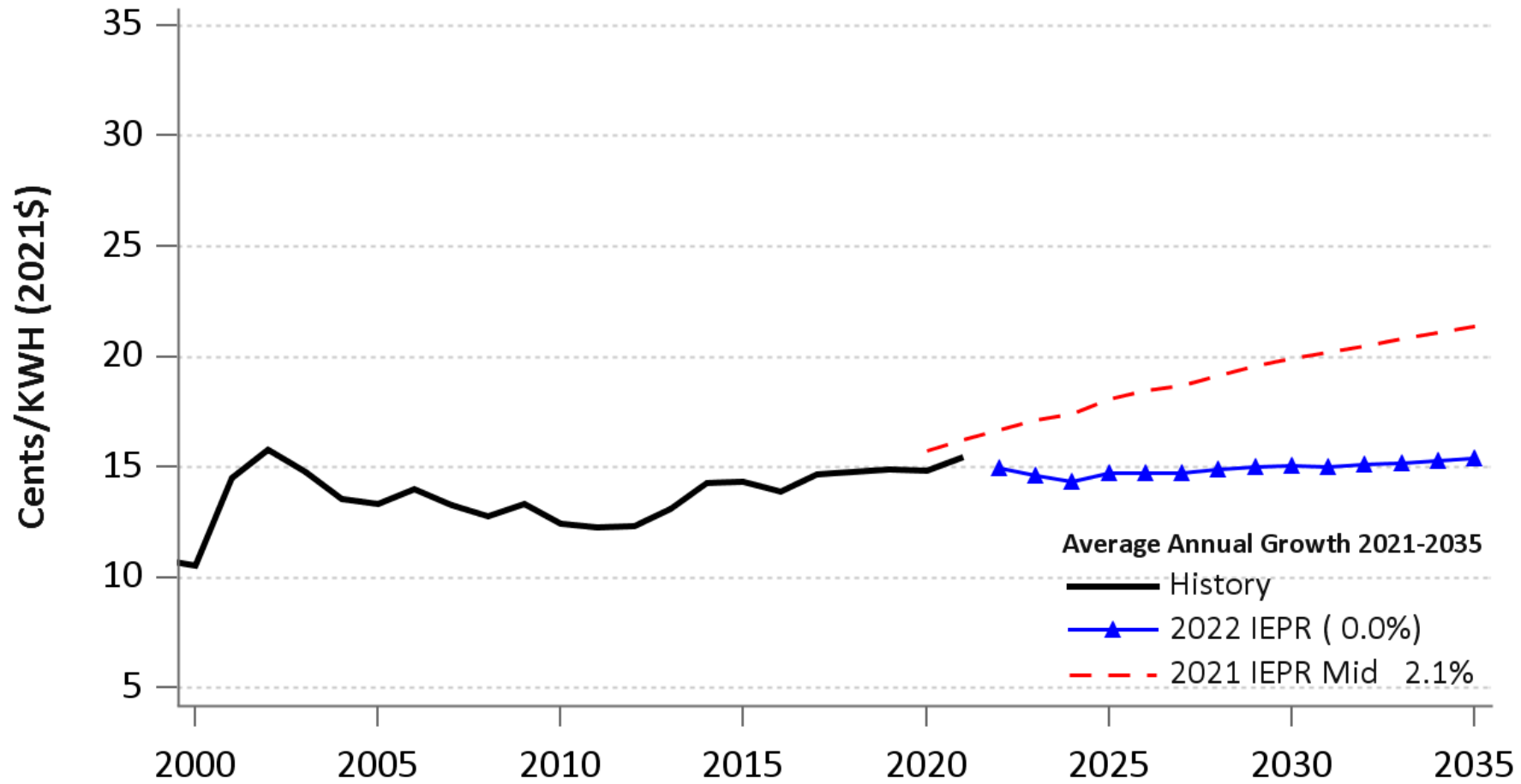


# Statewide Average Commercial Electric Rates





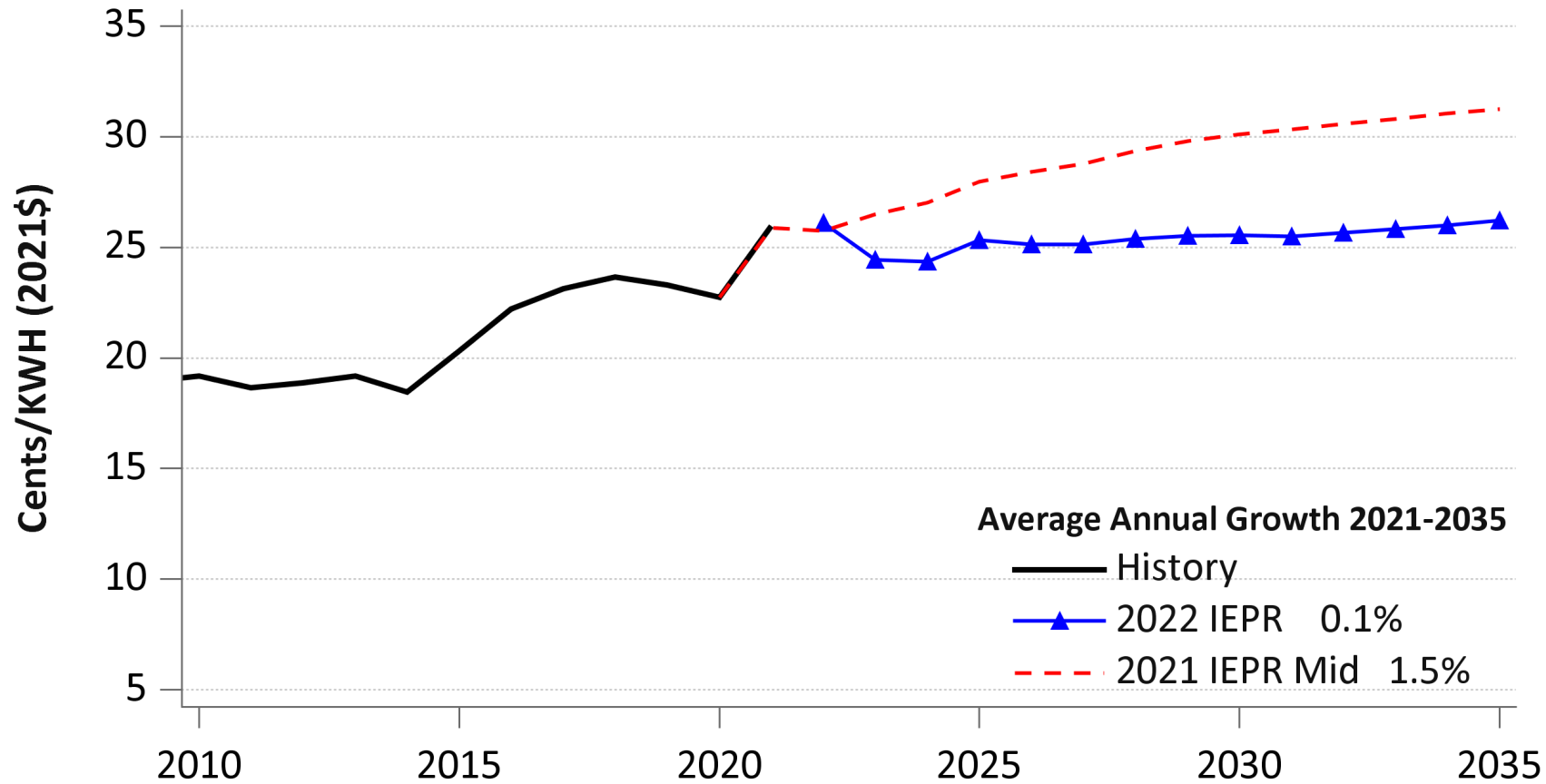
# Statewide Average Industrial Electric Rates



- Industrial rates are reduced by relatively lower energy prices, and reduced distribution rate burden.



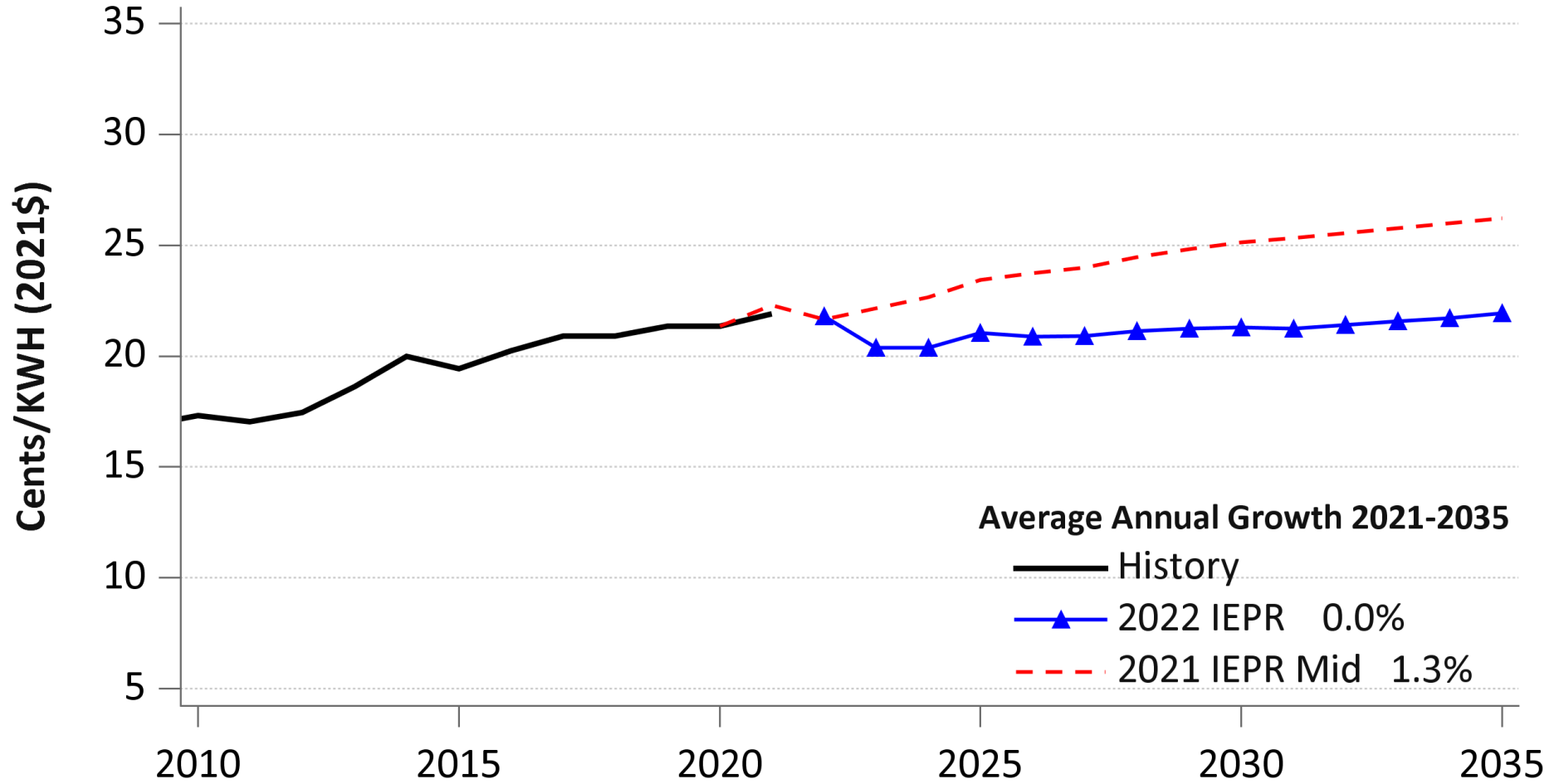
# PG&E Residential Rates



- PG&E has requested significantly higher amounts in pending GRC than assumed here.

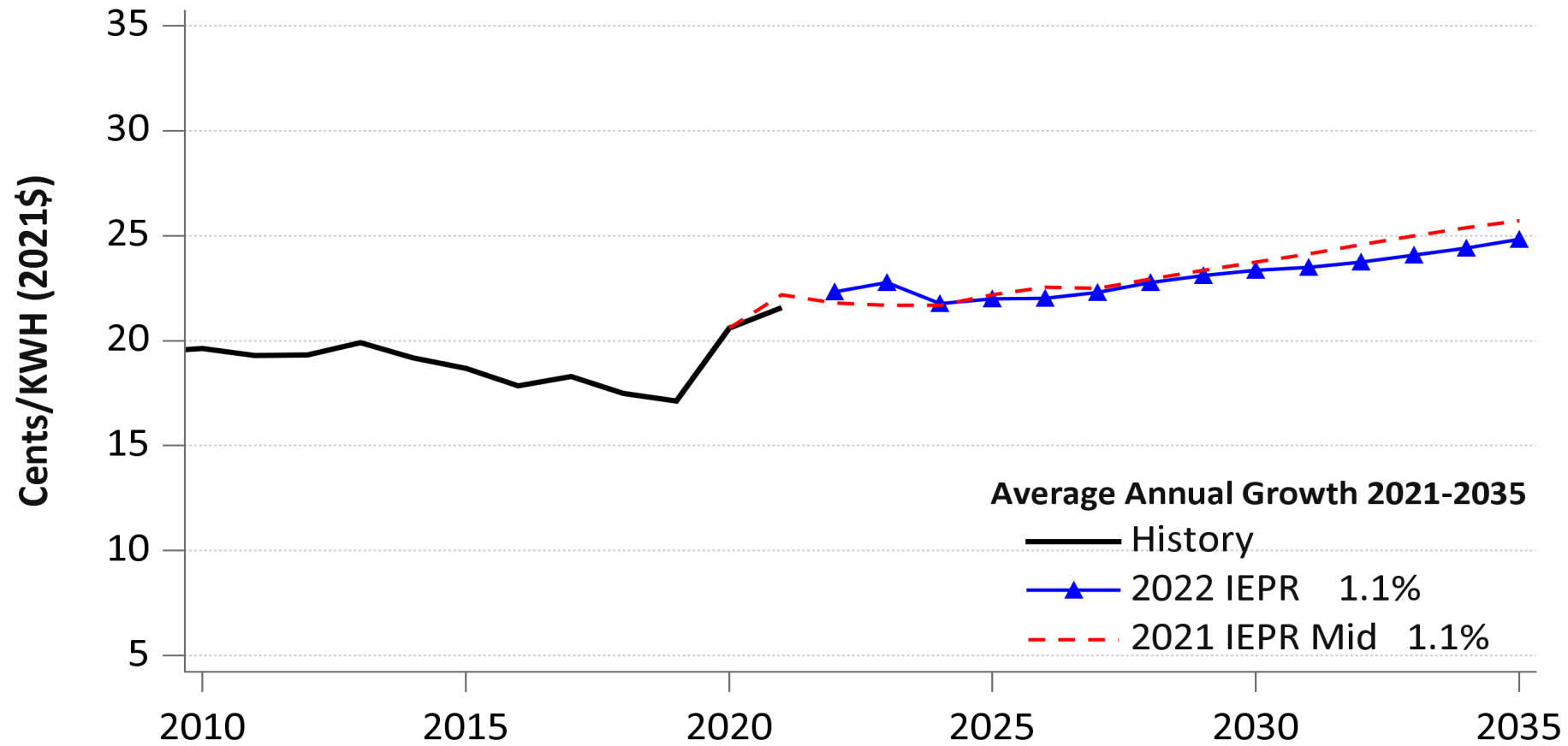


# PG&E Commercial Rates





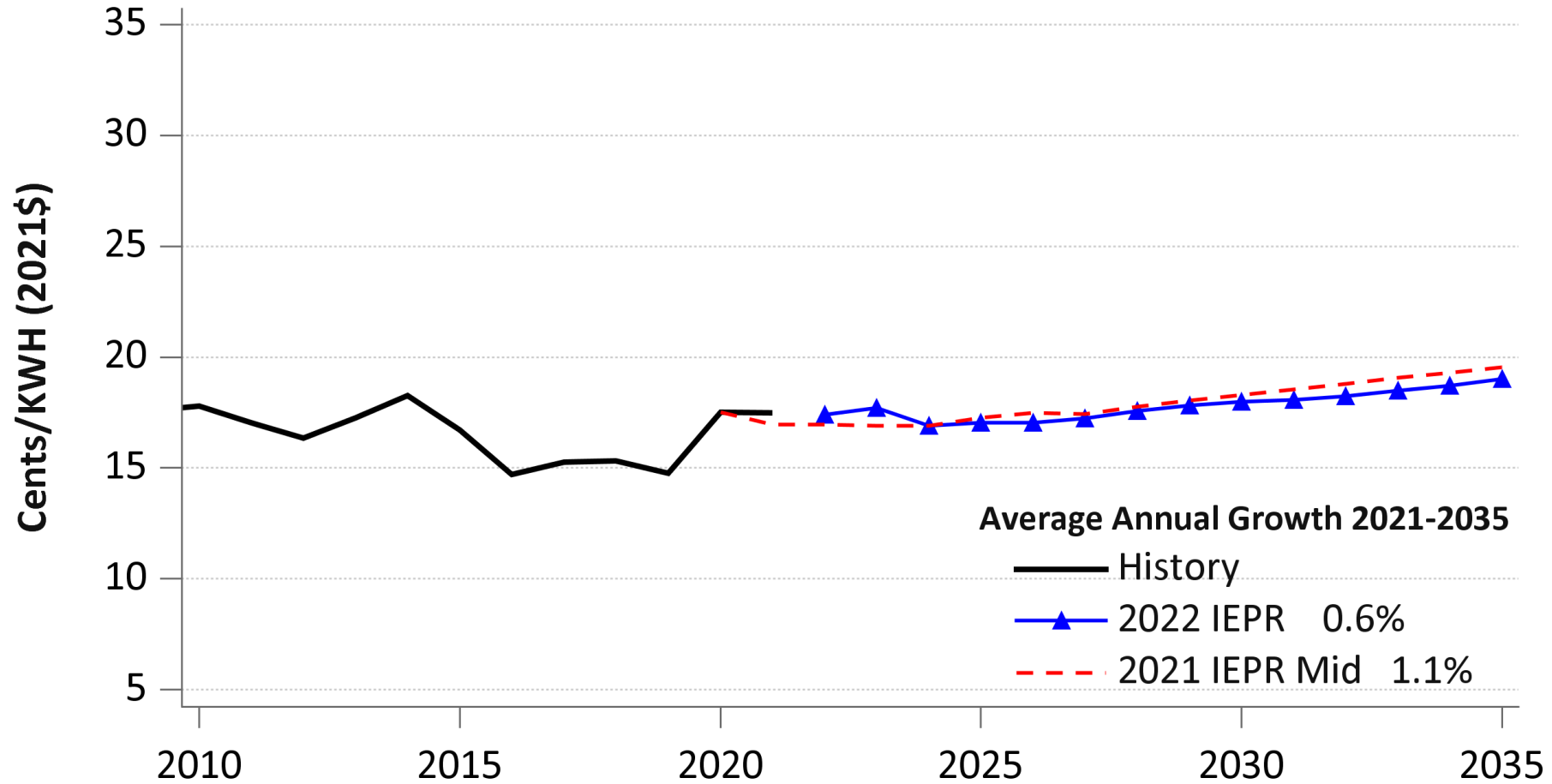
# SCE Residential Rates



- 2021 GRC decision approved significantly higher spending for wildfire mitigation, with 5.5% and 6% increases in revenue requirements for 2021 and 2022. Additional cost recovery applications increase near-term rates.

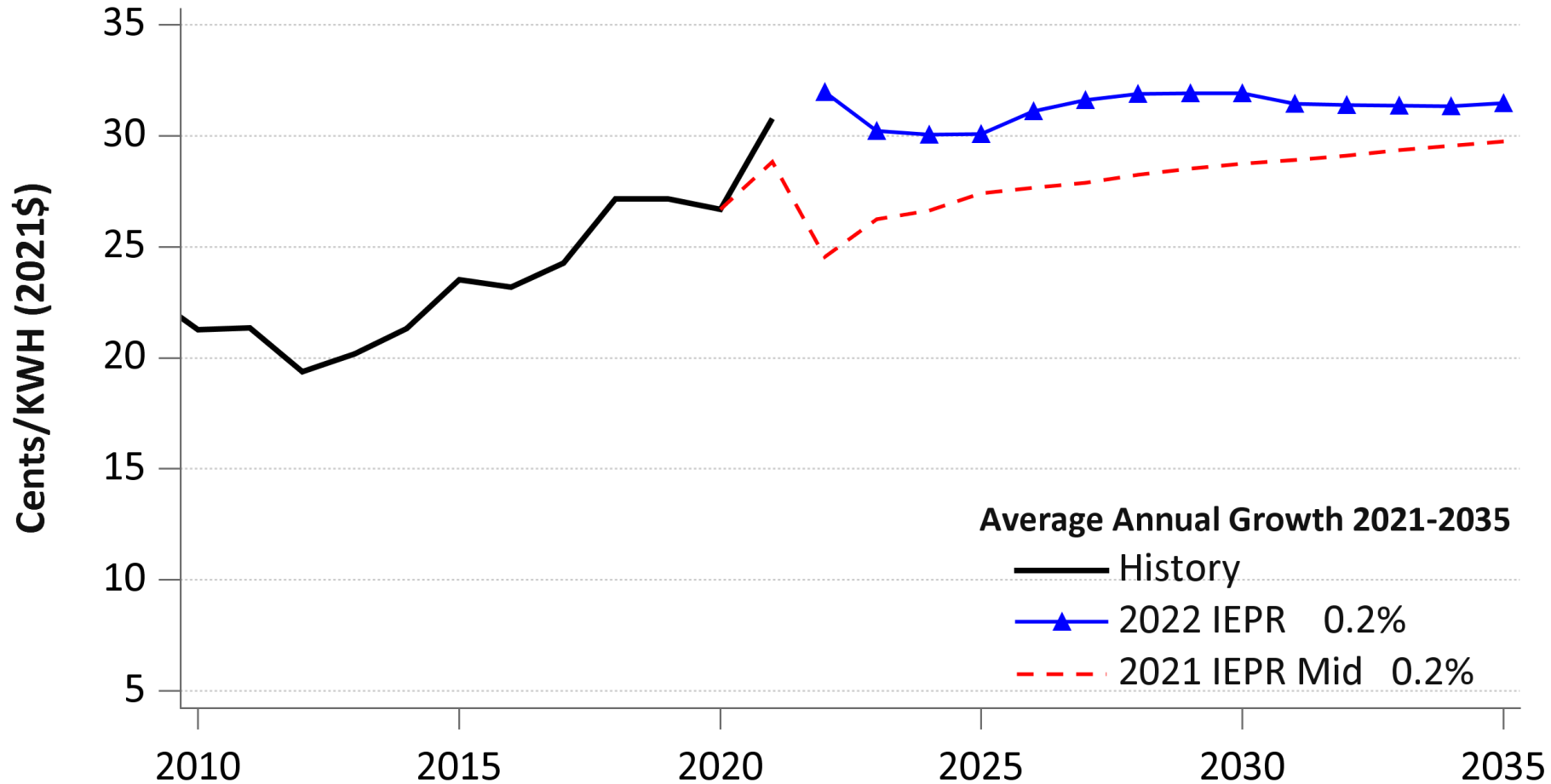


# SCE Commercial Rates





# SDG&E Residential Rates



- SDG&E has requested 6.7% increase in pending GRC, on par with forecast assumption.





# SDG&E Commercial Rates

